

ABSTRACT

A laser device which causes lasing with a use of a semiconductor quantum dot is provided with: a laser member (11) in which the semiconductor quantum dot is formed; a resonator (14) for resonating light generated in the laser member (11); and a pump laser (15) for irradiating the laser member (11) with excitation light whose energy corresponds to two-photon resonant excitation, so as to form a biexciton state in the semiconductor quantum dot by the two-photon resonant excitation. In this way, a laser device which enables lasing using efficient light emission is realized.